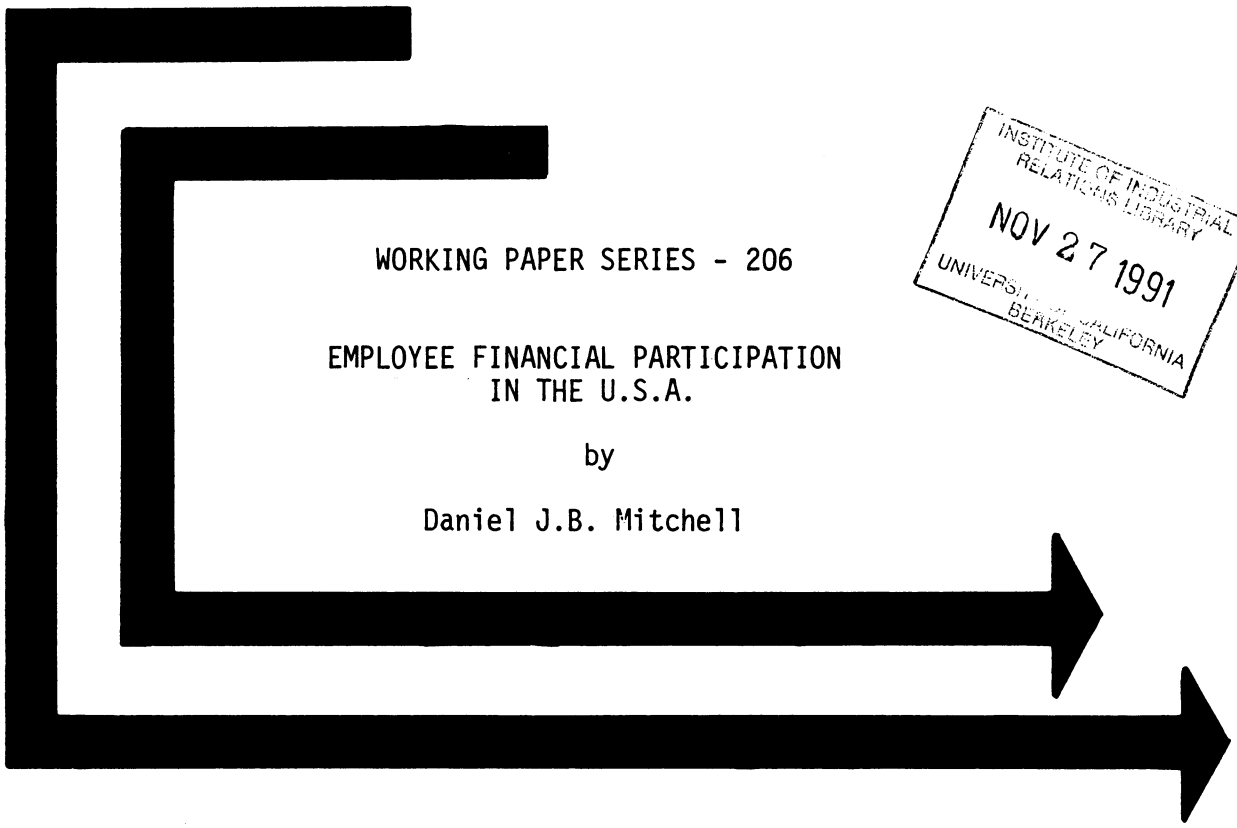

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EMPLOYEE FINANCIAL PARTICIPATION IN THE U.S.A.

by

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Contents

Interest in employee financial participation in the U.S. is not an isolated phenomenon.[1] It is part of a general search for more flexible arrangements in the employment relationship. Financial participation puts flexibility into the price side of that relationship, i.e., into wages and other forms of employee compensation. As such, it competes as a flexibility device with alternatives which instead put flexibility into the quantity side: hours, conditions, and employment itself.

I. Pressures for Flexibility on the U.S. Employment Relationship

There are two basic sources of pressure on the U.S. economy which have encouraged a search for flexible employment relationships. Some pressures are basically internal (domestic) while others are external (international) in scope. Both make it more difficult for employers to offer security of income to workers. To some degree, all countries have experienced these pressures. But it can be argued that the U.S. experienced a larger dose, in part because of its own domestic policies.

Economic changes - whether generated domestically or internationally - which increase uncertainty and risk to the firm, create a need to shift some of that risk elsewhere. Employees, as corporate stakeholders, are potential candidates to bear more risk, i.e., to assume risk normally borne by shareholders. In addition, as the risk to firm survival increases, long-term implicit guarantees of job/income security and future rewards are less credible. The emphasis turns to immediate rewards geared to current circumstances. Finally, to the extent that the risk to the firm can be reduced by enhanced competitiveness, reward systems which might increase productivity receive special attention.

i. Internal Pressures

During the 1980s, financial markets became more fluid and were used to support corporate restructuring, often through debt expansion. In the financial view, as opposed to the more traditional organizational view, firms are seen as portfolios of assets. These assets can be merged, spun off, taken over, or liquidated, based on risk/return calculations. While some of these actions might have been inhibited in the past by antitrust regulations, such legal constraints were substantially relaxed in the 1980s.

Certain sectors in the U.S., notably transportation, communications, banking, and utilities, were heavily regulated until the late 1970s and early 1980s. Firms

in these sectors enjoyed a blanket of government protection against competition through price floors and entry restrictions. Corporate stability in the regulated sector gave way to marketplace uncertainty and risk as government protections were removed in a movement towards deregulation. Again product-market risk increased and pressures from the product market were carried over into the labor market.

In contrast to the product-market experience, it cannot be argued that the labor market in the U.S. was deregulated during the 1980s; in many respects legal restrictions on employer discretion increased.[2] But unions as mechanisms to stabilize the employment relationship declined in importance as their membership fell. By the end of the decade, only one in seven private-sector workers was union-represented.[3] Unions might be expected to resist a shift of enterprise risks to workers. But with their own negotiating power reduced, and with unionized employers both at greater risk and - in some cases - more aggressive in bargaining, unions were forced to consider changes in traditional stances.[4]

Finally, it has been argued that technological changes are pushing manufacturing and other sectors away from mass production and towards flexible specialization in smaller units. The emphasis shifts from trying to manage consumer demand to adapting to tastes and finding a niche in a quickly-changing market. Firms may experience booms and busts as they try to adapt to an uncertain environment. Larger industrial firms and larger employment units - which were once better placed to provide employment stability - accounted for a decreasing employment share. Risk shifting and the need to reconfigure the employment relationship pushed employers to seek new approaches to compensation and rewards.

ii. External Pressures

Until the early 1970s, the U.S. dollar played a key role in an international regime of fixed exchange rates. This regime, whatever its faults, made rapid changes in international competitiveness unlikely. Foreign firms might increase their competitiveness relative to U.S. firms by adopting new technology, improving their industrial relations, and adopting innovative management techniques. Over a period of years, the cumulative influence of, say, foreign adoption of new technology could be important. But over short periods, the resulting shift in international competitiveness was necessarily gradual.

The experience of the U.S. with a floating dollar, especially in the 1980s, was disruptive. A remarkable dollar appreciation occurred during the first half of

the decade, rendering U.S. firms substantially less competitive in world markets. Dollar depreciation during the decade's second half partially unraveled that effect. However, the dollar has remained volatile, as experience during the 1990-91 Kuwait crisis illustrated. Flexible exchange rates - an external force - have therefore added to product-market risk.

Although the international spread of modern technology is, as noted, a more gradual force in determining competitiveness, it does have its eventual effects. With technology capable of moving across borders, and with the availability of international financial markets and markets for physical capital equipment, labor cost advantages can be a key element in competitiveness. Moreover, the 1970s and 1980s saw an increase in the number of important players added in the world marketplace. The so-called "four tiger" countries of Asia (South Korea, Hong Kong, Singapore, and Taiwan) now compete in U.S. markets with Japan and Europe. In addition, in the late 1980s, the U.S. and Canada negotiated a free-trade agreement that may be extended to Mexico in the 1990s. Were that to happen, an additional source of low-wage foreign competition would be created for American producers.

iii. Productivity Enhancement

Regardless of the source of pressure - internal or external - American firms have felt a need to enhance productivity. Improved productivity can always assist in competitiveness by lowering unit labor costs. While some steps to productivity improvement do not directly involve increased worker effort, e.g., increased capital intensity, much of the trend in productivity growth is not well explained. The possibility that a direct motivational device might increase productivity attracted special interest in the late 1970s and 1980s. One of the obvious factors behind this interest was the notable slowdown in American productivity growth after 1973.

In principle, certain forms of financial participation could enhance worker effort or otherwise reduce costs. But as in the case of risk sharing, employers have other possible options. They might, for example, install innovative decision-sharing programs - quality circles, autonomous work teams - without a financial sharing element. U.S. firms do not have mandatory works councils or co-determination requirements. But they can install similar arrangements on a discretionary basis.[5] Alternatively, firms can simply embark on campaigns to monitor work more closely and "cut out the fat."

II. Alternative Flexible Solutions

Although economic trends have intensified interest in adding flexibility to the employment relationship, pay arrangements are but one form such flexibility can take. Some forms of such alternative flexibility are often viewed as primarily of benefit to employers. Others are seen mainly as accommodations to employees. Obviously, there is some artificiality in this dichotomy, since both the demand and supply sides of the labor market influence employment conditions.

i. Flexibility from the Employer Perspective

U.S. employers are largely free to lay off workers they deem unnecessary. There was some legal encroachment on this freedom regarding large scale layoffs in the 1980s - notably a legislative enactment requiring 60 days notice for plant closings and mass layoffs. But most encroachments in the area of layoffs have primarily concerned individual terminations for disciplinary or similar reasons.[6] A layoff due to an economic downturn, a technological displacement, or just a search for a lower cost alternative, is still left almost entirely to employer discretion. Even where union contracts apply, layoffs of this type are commonly permitted; the contract typically will simply specify the rules for the reduction in force.[7]

American employers are also free to make use of contingent workers, such as temporaries and part-timers. Such workers are often hired on an on-call basis and may be easily terminated when the demand for their services ceases. Employers may also contract out peak work to other (often smaller) firms. Unfortunately, labor-market data do not isolate contingent workers from others. However, it is known that the use of workers employed through temporary supply agencies accelerated markedly in the 1980s. Such usage fell slightly as the 1990 recession approached, indicating that temporary workers were being used as front line buffers to deal with demand fluctuations.

ii. Flexibility from the Employee Perspective

Especially in economic downturns, employees may prefer to work reduced hours rather than have their employment relationships severed entirely. Various forms of "work sharing" can accommodate such desires. Generally, if demand falls off, employers will respond initially by cutting back overtime hours. Once overtime is eliminated, partial work weeks may be adopted. For example, a plant might operate for three days, rather than five, during a week. There are elements in American unemployment insurance laws which tend to discourage such hour-reduction practices.[8] However, several states have adjusted their laws to limit the

disincentives.

In periods of strong demand, or in regions where labor shortages are occurring, employers may change conditions of employment to accommodate employee tastes. Thus, various flexible hours scheduling schemes (flextime) can be used to accommodate family responsibilities. As an example, employees may be allowed to choose their work times, so long as they are present at the workplace during a core period during the day. Work-at-home arrangements, especially telecommuting through home-based computers and modems, also accommodate these needs.

In summary, American employers have a broad range of options to adjust to demand changes associated with the business cycle or with the increased vagaries of their particular product markets. Options other than flexible pay are available which can share risk with workers. During bad times, layoffs or diminished hours can be used to reduce labor costs. And contingent workers can be terminated. During good times, the likelihood of such adverse outcomes to employees falls and workplace accommodations to worker preferences increase.

III. Financial Participation Options

To explore the use of economic participation options in the U.S., it is necessary to spell out the kinds of flexible pay systems that can be legitimately designated as "financial participation." Generally, it is best to exclude arrangements which are not explicitly seen by firms as falling into that category. Without such exclusions, the discussion would inevitably have to encompass all forms of pay.

i. The Exclusions

The chief problem of definition is that any form of pay flexibility conceivably could be considered to be financial participation. For example, if aggregate wage inflation exhibits a marked procyclical variation, that characteristic might be considered as a form of de facto national profit sharing (since profits are procyclical, too). There has always been some cyclical element in American wage inflation. However, the U.S. experience with aggregate wage setting during the recession of 1990-91 does not suggest a marked change in wage responsiveness. In short, there are no grounds for including aggregate wage determination in the U.S. as a unique form of national employee financial participation. As in most countries, financial participation through this route remains quite limited.[9]

Some observers might argue that the widespread union concession bargaining (wage freezes and cuts) which began in the recession of the early 1980s, marked an increase at the micro level in de facto financial participation. Wages did respond to significant adversity in union bargaining situations. But it is also true that concessions spread from areas of obvious economic distress to other parts of the union sector and continued even after the recession of the early 1980s had ended. The 1990-91 recession did not produce a substantial upturn in union concessions, although the economic condition of many employers was adversely affected by the downturn.

There has been speculation that lump-sum bonuses, which developed in union concession contracts in the 1980s, might eventually evolve into a kind of profit sharing. So far, however, there is no strong evidence that such an evolution has occurred. Thus, this report excludes ordinary wage determination as well as concession bargaining and its offshoots (lump sums, two-tier wage plans) from the definition of financial participation in the enterprise.

Similarly, many American firms have systems of performance appraisal and merit bonuses. These systems are especially common for white-collar workers and nonunion employees. Workers deemed meritorious may also have better opportunities for promotions and other employment advantages. However, such rewards are at the discretion of management and are often based on subjective criteria. Thus, it is best to exclude such systems from the category of financial participation and to include (where possible) only formula-driven arrangements.

ii. The Inclusions

At the firm, business unit, or establishment level, financial participation in the U.S. has usually been seen as taking three principal forms: profit sharing,[10] gain sharing, and employee stock ownership plans (ESOPs).[11] At the individual or small work-group level, financial participation can be taken to include piece rates and commission systems which link pay to measured productivity or sales.[12] All of these systems, whether at the individual or firm level, create a flexible pay option for the firm. They may also have incentive or morale effects which raise productivity. And, as noted earlier, they therefore compete with other personnel options which provide flexibility and/or incentives.

iii. Frequency of Use and Characteristics

Despite the interest in alternative pay systems, comprehensive and consistent

data on their use in the U.S. are difficult to obtain. Figure 1 summarizes various available data sources. A quick perusal of these sources will reveal contradictory information as well as uncertainty over definitions employed and sample biases. Only the data from the Bureau of Labor Statistics (BLS) can be assumed to be statistically reliable and they, unfortunately, refer to only a portion of the labor force. The paucity of good data is a hindrance to research and sound public policy. Often it means that researchers must gather their own data bases, a task that would be much better left to statistical agencies such as the Bureau of Labor Statistics (if only it would collect comprehensive information!). Nonetheless, given these qualifications, what can be said about the incidence of alternative pay systems in the U.S.?

Simple Incentives. Simple incentives such as piece rates and commissions cover a relatively small fraction of the private workforce, probably less than a tenth. Data sources based on union contracts or on surveys of employers often simply count whether such systems are in use. They thus overstate the fraction of the workforce actually covered. The overstatement results from the fact that not all workers under a union contract which contains provision for incentives, and not all workers employed by a firm which uses incentives, are themselves covered by the incentive program.

Piece rates are typically confined to jobs - often in manufacturing - where quantities produced are easily measured. Commissions apply mainly in certain sectors of retailing. BLS surveys suggest that use of simple incentives declined during the post-World War II period, at least through the 1970s.

No tax advantages accrue to incentive pay plans. Payments to workers are taxable as ordinary income and deductible from the firm's taxable income as normal business expenses. That is, incentive payments receive the same tax treatment as time-based wages.

Profit Sharing. Profit sharing plans probably cover less than a fifth of the private workforce. Moreover, many plans which are termed "profit sharing" by employers do not have fixed formulas relating bonuses to profits. Formula-based profit sharing probably covers less than a tenth of the workforce. Profit sharing experienced a breakthrough in the union sector as part of the concession bargaining of the 1980s. But no more than half a million workers are covered in the union sector with a large

Figure 1: Data Sources on Alternative Pay Systems

1. Bureau of National Affairs, Inc., Basic Patterns in Union Contracts, twelfth edition (Washington: BNA, 1989). Sample of 400 union contracts. 33% refer to incentives although 6 percentage points of these are prohibitions on their use. Hence, about 27% accommodate use of simple incentives, with a concentration in manufacturing. (Not all workers under these contracts are necessarily covered by the incentive provisions). Profit sharing is not explicitly broken out but only 8% of the contracts have provision for any form of bonus including profit sharing. Most of these are year-end or Christmas bonuses rather than profit sharing. (Excluded from the bonus figures are "lump sums" and incentive bonuses tied to production).

2. Contract Library and Information Service, Characteristics of Major Private Sector Collective Bargaining Agreements as of January 1, 1988 (Cleveland: Industrial Relations Center, Cleveland State University, 1989). Sample of 500 agreements covering 500 or more workers obtained from the U.S. Bureau of Labor Statistics. 7% of the agreements containing 22% of the workers under these agreements had profit sharing, about 460,000 workers. Over 70% of these workers were under "transportation equipment" contracts, which may be assumed to be in the automobile industry. 8% of the contracts containing 23% of covered workers had stock purchase plans. Again, over 70% of these workers were in transportation equipment although some of these may be in aerospace. 21% of the contracts covering 30% of the workers had provisions for incentive pay. Only 2 out of the 500 contracts had provisions for commission pay.

3. Bureau of National Affairs, Inc., Non-Traditional Incentive Pay Programs, Personnel Policies Forum Survey No. 148 (Washington: BNA, 1991). Survey of 191 employers including 47 "non-businesses" (health care institutions, educational institutions, and other non-profit entities). Excluding the non-businesses, 17% had profit sharing and 3% had gain sharing. 33% had individual incentives and 15% had small group incentives.

4. Carla O'Dell and Jerry McAdams, People, Performance, and Pay (Houston: American Productivity Center, 1987). Survey of 1598 firms. 32% had profit sharing, 13% had gain sharing (including certain forms of profit sharing below the level of the entire firm), and 14% had small group incentives. It might be noted that of the gain sharing plans reported only 12% were Scanlon plans, 1% were Rucker plans, and 21% were Improshare plans. Thus, about two thirds of the firms using gain sharing used their own customized formulas.

5. Corey Rosen and Karen M. Young, eds., Understanding Employee Ownership (Ithaca, N.Y.: ILR Press, 1991), p. 20. Estimates that 11.5 million workers were covered by ESOPs and "ESOP-like" plans in 1989, about 13% of nonagricultural private payroll employment. These estimates, from the National Center for Employee Ownership (NCEO) are widely cited and are even reprinted in the official Statistical Abstract of the United States. The difficulty is that they are not consistent with data on ESOP incidence collected by the U.S. Bureau of Labor Statistics (see below) which suggest much lower ESOP usage. It is possible that the discrepancy is accounted for by the "ESOP-like" plans estimated by NCEO. However, it is possible that the figures include cumulative estimates of workers once covered by "tax-credit ESOPs" which were discontinued after a change in tax law in the late 1980s. These tax-credit ESOPs contained very small amounts of stock and it is unclear what happened to the stock they contained after the tax law was changed. Hence, the NCEO estimate is probably exaggerated if taken as an estimate of ESOP coverage.

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Figure 1 - continued

6. U.S. Bureau of Labor Statistics, Employee Benefits in Medium and Large Firms, 1989, bulletin 2363 (Washington: GPO, 1990). Sample survey covers 40.5 million workers in private establishments with at least 100 workers. 16% of full-time employees were covered by profit sharing (1% under cash plans, 13% under deferred plans, and 2% under cash and deferred combination plans). Of these plans, 60% used a predetermined formula for sharing profits and 40% were at the discretion of the employer. Hence, only about 8% of the covered full-time workers in the survey had formula-based profit sharing. 37% of workers under deferred profit sharing had immediate vesting. There was a break in the series from which these data were drawn in 1988. However, it appears that the incidence of profit sharing has fallen since the mid-1980s. Only 3% of full-time workers were covered by ESOPs. Although the BLS survey covers roughly half of private wage and salary employment, its ESOP estimate does not appear consistent with the NCEO estimate cited above in reference no. 5.

7. Joseph S. Piacentini and Timothy J. Cerino, EBRI Databook on Employee Benefits (Washington: Employee Benefit Research Institute, 1990), p. 80. 24% of firms surveyed in 1986 by the U.S. General Accounting Office had deferred profit sharing, 1% had ESOPs and/or tax-credit ESOPs. For firms with less than 100 full-time workers in 1985, 6% of the firms and 15% of the workers had deferred profit sharing. (Data from National Federation of Independent Business).

8. U.S. Chamber of Commerce, Employee Benefits: Survey Data from Benefit Year 1989 (Washington: Chamber of Commerce, 1990). 22% of 957 firms surveyed paid profit sharing payments amounting to 3.2% of payroll. 10% paid benefits to stock bonus and ESOP plans amounting to 2.4% of "payroll." (Note that payroll is about 73% of total employee compensation in the typical surveyed firm).

9. Joseph Raphael Blasi and Douglas Lynn Kruse, The New Owners: The Mass Emergence of Employee Ownership in Public Companies and What It Means to American Business (New York: HarperBusiness, 1991). The authors develop a data set of 1000 public corporations. They estimate the proportion of stock in these firms on behalf of workers in pensions, savings arrangements, stock purchase plans, and ESOPs. About 4.3 million workers in 1989 were participants in plans which held more than 4% of their employer's stock. 53% of these stock holdings were in ESOPs. Using NCEO data (see reference no. 5 above and the cautionary proviso about this source), they estimate that another 6.5 million workers were in closely-held firms in which more than 4% of the employer's stock was held by various employee plans. It should be noted that very few firms of the 1000 in the survey had more than 50% employee ownership; 91.5% had ownership levels below 25% and the median holding was 9.8%.

10. Profit Sharing Council of America, 1990 Profit Sharing Survey (1989 Experience) (Chicago: PSCA, 1990). Survey of 430 firms with 435 profit sharing plans. 39.5% of profit sharing plans had no formula and relied purely on employer discretion. The proportion relying entirely on employer discretion varied inversely with size of the plan. 54% of the plans with under 50 participants were purely discretionary whereas only 21% of those with 5000 or more participants were purely discretionary. Plan payouts as a percent of profits were also inversely related to size; the median payout for plans with under 50 participants was 30.7% vs. 7.5% for plans covering 5000 or more workers.

Over--->>

Figure 1 - continued

11. ESOP Association, ESOP Survey, 1989 (Washington: ESOP Association, 1990). Survey of 474 ESOP companies belonging to the ESOP Association. 73% were nonunion. 88% of the companies were closely held (not publicly traded). 47% of the companies responding had 50-249 employees. 28% of the plans had been converted from a profit sharing plan and 13% had been converted from a pension plan. 30% of the ESOP firms also had profit sharing. 39% of the surveyed firms had employee ownership of 50% or more. (This high figure is due to the composition of the membership of the ESOP Association). 62% of the ESOPs were leveraged (so that they could borrow from financial institutions and lend to the firm). 5% of the ESOPs were created as part of wage and benefit reductions from employees. (Note, however, that absolute reductions in nominal wages and benefits were rare in the 1980s; freezes were much more common). 7% of the ESOPs were created as takeover defenses.

12. U.S. General Accounting Office, Employee Stock Ownership Plans: Participants' Benefits Generally Increased, but Many Plans Terminated, GAO/HRD-91-28 (Washington: GAO, 1990). Survey of 156 ESOPs as of 1987. The typical plan participant had a balance valued at about $13,000. Plans held a median of 27% of company stock for privately held firms and 4% for publicly traded firms. The report noted a high termination rate for ESOPs: Of 606 plans active at the time of a 1985 GAO survey, only 62% were still active in late 1989 and early 1990. Some of these terminations were due to cessation of business by the enterprise. However, even among active firms, the termination rate was 30%.

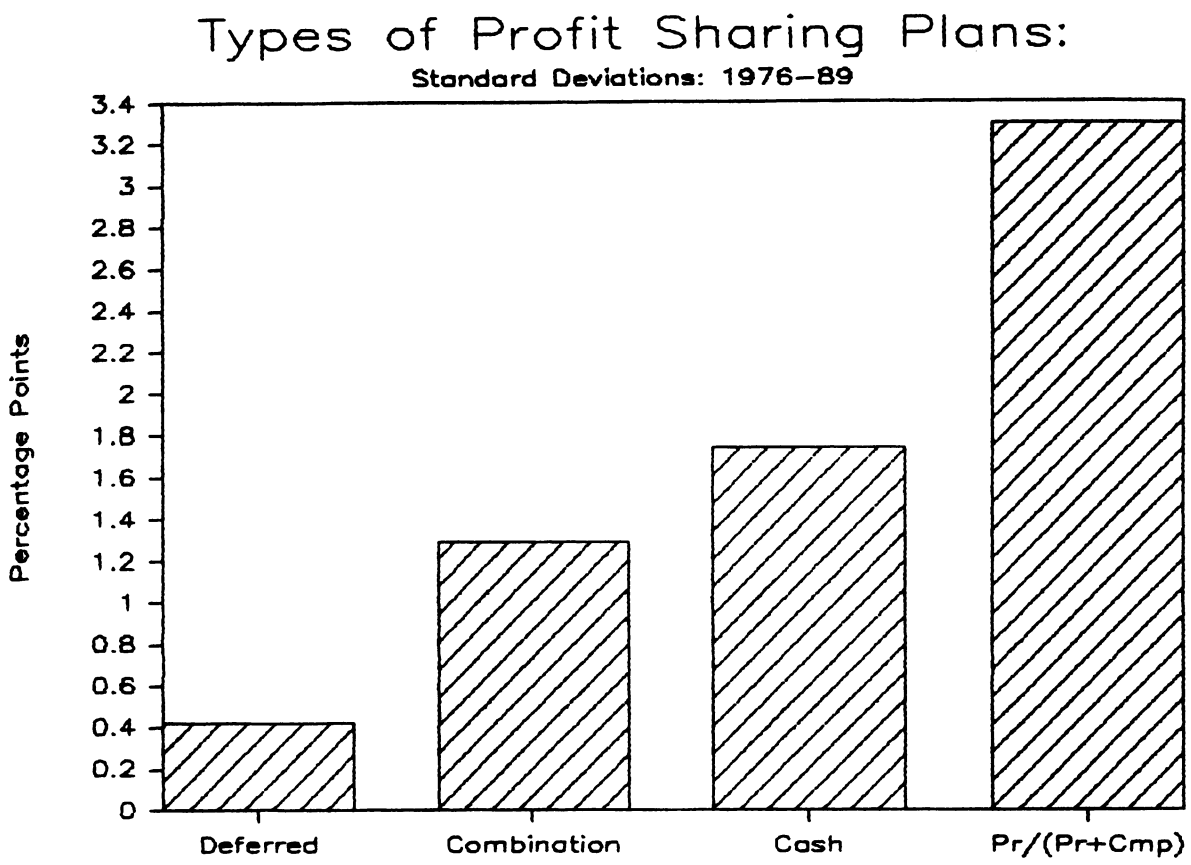
majority of these located in the automobile industry.[13] There is some evidence of a decline in the use of profit sharing after the mid-1980s.

Most profit sharing plans pay their bonuses into deferred trust funds to be used for retirement. Under the tax code, such bonuses are then sheltered from income taxation until withdrawn by the employee. Since other forms of tax-favored savings plans are now readily available, it may be that some of the decline in profit sharing is due to substitution of these plans for profit sharing arrangements. There is some regulatory advantage of profit sharing as compared with defined-benefit pension plans. The latter are subject to portfolio and funding constraints and must pay for government-provided termination insurance. Defined-contribution pension plans are subject to less government regulation but - as the name implies - the contribution rate is a fixed periodic commitment. Contributions to profit sharing plans are not fixed and hence allow more management discretion and less regulatory constraint.

It appears that those profit sharing plans which get no tax advantages are precisely the ones which exhibit the most bonus variability. Chart 1 shows the standard deviation of the annual bonus-to-pay ratio (in percent) during 1976-89 of three types of plans: deferred plans (which are tax-favored and thus substitute for pensions), cash plans (which receive no tax advantages), and combination plans (which have cash and deferred elements).[14] These data are compared with the standard deviation of the ratio of before-tax profits (Pr) to profits-plus-employee compensation (Pr+Cmp) in the domestic corporate sector.[15] As can be seen from the chart, deferred plans are the least variable. Cash plans are the most variable and vary about half as much as a hypothetical plan which treated all non-interest returns to capital as an employee profit sharing bonus.[16]

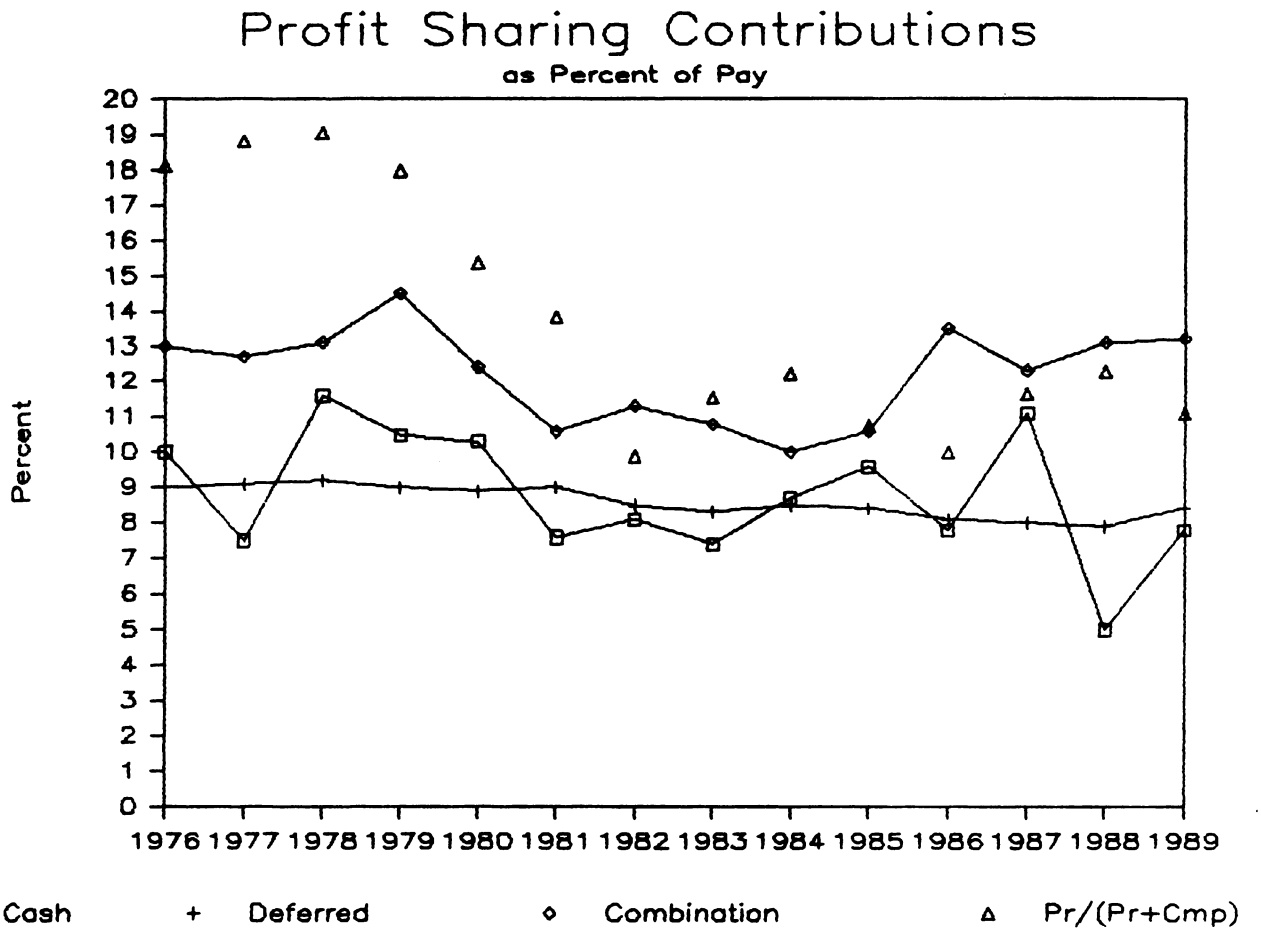
Chart 2 shows the time-series history of the bonus/pay ratios of the three types of plans. As can be seen, deferred plans appear to function largely as defined-contribution pensions paying about 9% of pay into the deferred trust with little yearly variation. Cash and combination plans show greater variation although none of the plan bonuses appear to be highly correlated with general corporate profit movements. There was a downward shift in profits relative to pay during the early 1980s as corporations became more indebted and moved more of the return to capital toward interest. But the downward trend in profits is not apparent for any of the three types of plans. This result suggests that profit sharing formulas and payouts were adjusted upward to compensate for the leverage effect. However, since

Chart 1



See text for data sources and interpretation.

Chart 2



See text for data sources and interpretation.

profit-trend data are not available just for profits of profit-sharing firms, only limited conclusions can be drawn from the chart about the empirical link between profitability and bonuses.[17]

Gain Sharing. Gain sharing plans cover very few workers. Textbook discussions of these plans commonly describe Scanlon plans, Rucker plans, and Improshare plans as examples. The first two base bonuses on a value measure such as value added or shipments and are linked to other programs involving worker participation in decision making. The last is based on physical output measures and is really a large-group piece rate; no participatory element need be involved. Despite the textbooks, those firms using gain sharing appear most often to use their own customized plans rather than the strict Scanlon, Rucker, or Improshare versions.

Gain sharing plans involve cash payouts and so receive no tax advantages. Their bonuses are treated the same as simple incentives, cash profit sharing, and ordinary wage income.

Employee Stock Ownership. Employee stock ownership through formal ESOP arrangements covers relatively few workers, according to the Bureau of Labor Statistics, although some growth occurred in the 1980s. BLS estimated a coverage rate of 3% for full-time workers in medium to large establishments. This coverage rate is substantially below estimates from other (less reliable) sources that appear to include other forms of stock ownership. Even using the highest non-BLS estimates, only about 1 out of 8 private workers participates in a plan involving any significant degree of stock ownership.

Tax treatment for ESOPs is highly favorable although there has been some reduction in taxpayer largesse in this area. During the early 1980s, so-called "tax-credit ESOPs" were created by changes in the tax code which essentially financed these programs at government expense.[18] However, tax-credit ESOPs permitted only small "contributions" of stock by the employer and so were of negligible significance. But they did create a large number of employees nominally covered by stock ownership.[19]

It is unclear what became of these plans after the generous tax treatment of tax-credit ESOPs ended in the late 1980s. Some plans may have been cashed out; others may have been merged into other pay programs. However, tax-credit ESOPs appear to have left a legacy of exaggerated estimates of the extent of worker stock ownership. Research studies on the effect of ESOPs undertaken in the mid-1980s were

contaminated by the inclusion of tax-credit ESOPs in the data.

Tax treatment of ESOPs begins with the standard tax deferral available to other deferred payment plans such as pensions. The employer contribution is deductible as a business express from taxable income, but the value to the employee is not immediately taxed. So-called "leveraged" ESOPs can be used to borrow for corporate finance purposes. Essentially, the ESOP trust borrows from a bank on behalf of the enterprise and in turn receives stock equal to the principal of the loan. The firm then repays interest on the loan (which would be tax deductible with or without the use of an ESOP) and principal. Payments on principal are also deductible from taxable income (which they would not be without the use of an ESOP).

Although the tax provision for leveraged ESOPs is often portrayed as a considerable tax subsidy (because of the treatment of principal), in theory it is not a subsidy at all. Since the firm is supposed to have contributed stock equal to the value of the loan's principal to employees via the ESOP trust, a neutral tax system should permit principal payments to be deducted. The contribution of shares equal in value to the principal is a cost to the other owners of the firm, just as a bonus payment would be.

It does appear, however, that many ESOPs were stimulated by the introduction of this tax treatment in the mid-1970s. This observation suggests that the true tax advantage may lie with overstatement of the value of contributed stock. Since many ESOPs involve closely-held firms with no external market for their stock, such overvaluation is a problem for tax collectors and, probably, a source of de facto tax subsidy.

In any case, other tax advantages have since been given to ESOPs. Half of the interest received from loans to ESOPs by lending institutions was excluded from income tax liabilities of these institutions until 1989. Changes in tax law at that time limited this special treatment to ESOPs involving 50% or more employee ownership and imposing other restrictions. ESOP tax treatment favors the transfer of family-owned firms to employees as a way by encouraging retiring owners to sell their share to an ESOP. And other special features apply.[20] The various special ESOP provisions are estimated to have cost about $2 billion in lost revenue in the federal budget for fiscal year 1991.[21]

Because of persistent federal government budget deficits, there are ongoing pressures in Congress to close tax loopholes and to find additional revenue sources. Until the end of the 1986 session, ESOPs had a powerful proponent in the Senate -

Senator Russell B. Long, chair of the Committee on Finance.[22] After his retirement there has been an erosion of the favorable treatment of ESOPs, most notably the termination of the subsidy for tax-credit ESOPs. It is likely that such erosion will continue.

As in the case of profit sharing, ESOPs were sometimes negotiated in union contracts in the 1980s as part of concession bargaining. But using a restrictive definition of such bargaining, the ESOP Association (Figure 1) reported that most ESOPs were not of this variety. A more expansive definition involving freezes in pay rather than absolute cuts would probably boost the recorded percentage. Moreover, some ESOPs were created to save failing enterprises (see below) through employee ownership.

The ESOP Association also noted that most ESOPs were not created as takeover defenses during the corporate raids of the 1980s. Nonetheless, there were some prominent uses of ESOPs in such corporate control battles. For example, a 1990 takeover bid for the Lockheed Corporation - a major aerospace firm - was defeated by votes of employees through the company ESOP. In effect, employees supported incumbent management. On the other hand, management and employees can come into conflict; a union official ran a widely-publicized - but ultimately unsuccessful - campaign to elect himself via ESOP votes to the board of directors of Pacific Enterprises in 1989.[23]

Although the proportion of employees with significant ownership interests in their firms remains small, there are notable enterprises with important elements of employee ownership. Figure 2 lists 25 of the largest enterprises as of 1991 which have 30% or more employee ownership. Of the firms with majority employee ownership on the figure, Avis is probably the best known company. Avis - it might be noted - had five owners during the 10-year period leading up to the management-initiated ESOP buyout in 1987. Thus, the Avis ESOP can be viewed as a takeover defense.[24] Another majority-owned firm on Figure 2, Weirton Steel (see below), is an example of a buyout accompanied by pay concessions to prevent a plant closing.

IV. History of Alternative Pay Systems in the U.S.

The idea of paying workers on an other-than-time basis is not new. Piece rates were common in manufacturing settings in the late 19th century. Some early profit sharing plans existed in that period, although very few workers were covered. Notions of employee ownership also were reflected in various utopian cooperative

Figure 2: The Largest 25 Enterprises with 30% or More Employee Ownership

Company	Industry	Employees
Kroger	Supermarkets	178,000
J.C. Penney	Retailing	177,000
McDonnell Douglas	Aerospace	127,000
Rockwell International	Aerospace	108,000
Publix Supermarkets	Supermarkets	65,000**
Carter Hawley Hale*	Retailing	35,000
Grumman	Aerospace	32,000
HealthTrust	Hospitals	30,000**
FMC	Manufacturing	28,000
Coldwell Banker	Real estate	24,000
Hallmark Cards	Greeting cards	19,000
Dyncorp	Technical services	15,700
Lowe's Companies	Lumber/hardware	14,700
Avis	Rental cars	13,500**
America West Airlines*	Airline	13,000
EPIC Healthcare Group	Hospitals	13,000**
Science Applications	Research/computer services	13,000**
Ruddick	Holding company	9,390
Parsons	Engineering	8,500**
Price Chopper	Supermarkets	8,500
Amsted	Manufacturing	8,300**
Austin Industries	Construction	7,800**
Avondale Shipyards	Shipbuilding	7,500**
Weirton Steel	Steel manufacturing	7,200**
The Journal Company	Newspapers/media	6,200**

Note: Employee ownership as of May 1991.
*Currently in bankruptcy
**Majority owned

Source: National Center for Employee Ownership, Inc., Employee Ownership Report, vol. 11 (May/June 1991), pp. 8-9.

ventures.

Various themes were common at that time surrounding discussions of pay systems. The so-called "labor problem", i.e., the potential for social unrest stemming from labor-capital frictions, was a prominent issue. And the idea of making workers economic partners with employers was seen as a solution to the labor problem by some observers. Pay systems, in other words, might be used to foster social harmony.

Another idea - especially in management circles - was union avoidance or, in some cases, improved union-management relations. Creating the right incentive system was sometimes seen as a way of giving the workers the motivation to eschew restrictive union workrules. In addition, it was thought that if workers were made to appreciate the value of added productivity, unions and management would have a cooperative relationship.

Finally, there was the basic notion of enhancing efficiency and productivity by use of the optimum pay system. With the correct incentives, employees would work harder and would not shirk on the job. Employers could economize on supervision and monitoring since the pay system would be an automatic motivator.

i. Scientific Management: 1880-1929

The writings of Frederick W. Taylor became influential in management circles in the late 19th and early 20ieth centuries. Taylor thought the workplace of his time was inefficiently run because pay setting and other managerial functions were not being approached scientifically. Through analysis of managerial and supervisory tasks, a professional core of managers could be trained. These individuals, in turn, would properly operate the pay system.

From Taylor's perspective, existing piece rates were being improperly set, thus encouraging "soldiering" (work-effort restriction) by employees. He proposed a kinked piece rate schedule with work effort beyond scientifically established norms providing an extra reward. The norms, in turn, would be determined through precise time-and-motion studies.

Taylor favored individual piece rates rather than profit sharing or early forms of gain sharing. He wanted to discourage collective thinking and collusion by workers. Group rewards were not sufficiently individualistic for this purpose. And in any case, group rewards might foster free riding by shirkers.

The notion of applying a scientific approach to management caught the spirit

of the era. Various other writers were inspired by Taylorism and developed their own versions of incentive pay systems. By the mid-1920s, the peak of enthusiasm for scientific management, perhaps half of the manufacturing workforce was on some form of piece rate system. A common view in that period was that piece rates and other incentives should provide extra pay (above the going rate), so that workers would appreciate the reward they were obtaining for higher productivity. This notion of the bonus as "gravy" on top of the going wage is still current, as will be noted below.

Although scientific management stressed efficiency, the turn of the century also saw the rise of social reform movements which stressed uplifting the worker's cultural level.[25] Profit sharing appealed to certain reformers, especially in the period surrounding World War I. Such systems would promote social harmony and - from an efficiency point of view - avoid the pitfall of piece rates which emphasized quantity over quality. Profit sharing promoters, however, agreed with piece rate proponents that the bonus should be gravy above the going wage. It will be noted later that the notion that the bonus is an add-on to pay rather than a substitute for pay conflicts with modern macroeconomic arguments for profit sharing.

Unions were not inherently opposed to piece rates at the turn of the century, in part because piece rates were so common. But they did oppose scientific management and its accompanying time-and-motion analysis, which impinged on collective employee control of the work pace. However, during the 1920s, there was a notable shift in union attitudes.

The decade of the 1920s was a period with parallels to the 1980s. Unions were substantially weakened and suffered membership losses during both periods. And employment in core industries was relatively stagnant.[26] In the face of these pressures, the American Federation of Labor (AFL) emphasized cooperative union-management relations to lessen employer opposition and to preserve enterprises in shaky financial condition. The AFL formed an alliance with Taylorites during the 1920s and - in some cases - promoted time-and-motion studies and piece rates. But profit sharing was not popular with unionists, just as it was not popular in scientific management circles.

Apart from Taylorist thinking, unions saw profit sharing as an antiunion tool. And, indeed, some profit sharing systems had been instituted as part of union avoidance. During the World War I era, employee representation plans ("company unions") had been created - sometimes with government encouragement - as an

alternative to outside unions. Some of these plans had profit sharing elements. This history simply encouraged the distaste unions already felt for profit sharing schemes.

ii. Developments During 1930-1979

The Great Depression had a profound effect on all aspects of American industrial relations. It promoted a revival and substantial growth of unionization. Widespread labor unrest accompanied the Depression. At the same time, new ideas in academia began to penetrate managerial thinking about the employment relationship.

Developments in psychology, sociology, and behavioral science tended to downgrade the notion of the worker as an "economic man" guided solely by monetary motivators. Instead it was proposed that managers should emphasis behavioral techniques which brought out natural worker creativity. Or - even if one's view of the average worker was not an optimistic image of creativity - workers were thought to be best managed and manipulated through the application of such new techniques as "mental testing" and attitude surveys. Using modern behavioral tools, workers could be matched by employers to those jobs to which they were best suited. Jobs could also be carefully designed to match worker abilities. Piece rates were seen as crude devices based on the outmoded economic man model which more sophisticated behavioral approaches would or should supplant.

At the same time these academic ideas were coming into vogue, the experience of the Depression ended the cooperative spirit that had produced the union-Taylorist alliance. The union role became adversarial. Individual piece rates weakened worker solidarity in confrontations with management and so were opposed by militant union officials. Simple incentives also led to frictions between labor and management whenever piece rate standards were changed. Given these tensions, use of piece rates declined during the 1930s.

There were never many profit sharing plans during the 1920s. Those profit sharing plans (and stock purchase plans) that did exist tended to fall into disrepair during the Great Depression as profits and stock prices plummeted. In addition, the variability in income which these plans entailed was counter to the growing notion of social security. New social insurance programs were arising to cushion economic vagaries. Ideally, wages should be fixed and secure. Various economic theories came into fashion suggesting that wages should be boosted to stimulate consumer purchasing power as an anti-depression device. Pay systems that

reduced incomes during downturns were seen as counterproductive.

Although there was some abandonment of profit sharing in the 1930s, there were also countervailing forces at work. Labor-management frictions revived the old idea of profit sharing to promote social harmony. Senate hearings were held in the late 1930s to explore use of tax incentives to foster profit sharing. Moreover, there was some discussion of encouraging profit sharing as a way of introducing flexibility into pay for macroeconomic reasons. This discussion foreshadowed economic thinking in the 1980s.

Modern gain sharing also received some stimulus during this period. The original Scanlon plan developed in the 1930s from a successful union experiment in saving a floundering enterprise. In contrast to the general climate of adversarialism, a system was established entailing a sharing of cost savings from productivity gains and worker participation in management. The Scanlon experiment was particularly appealing to academics because it combined an optimistic view of worker/union-management cooperation with a seemingly-reformed economic approach to sharing the gains of efficiency. As a result, the Scanlon plan received substantially more textbook attention in the post-World War II era than was warranted by the actual proportion of the workforce covered by such plans (which was always negligible).

World War II produced a temporary halt in the downward trend in piece work coverage. Left-wing unions swung over to a cooperative posture with management once Russia was attacked by Germany and the U.S. became involved in the war effort. Piece rates were reintroduced to stimulate productivity. But after the war the decline resumed. Simple incentives were overwhelmed by the psychological approach to motivation and the operational problems inherent in administering piece rates in the face of adversarial union-management relationships.

The postwar adversarial union-management relationship led to a major concern in management circles about preserving management's rights to control the enterprise. These concerns were eventually reflected in public policies such as the Taft-Hartley Act (1947), which carefully delineated the borderline between ordinary employees and supervisors. And the concept of management's rights came to be reflected in the actual practice of industrial relations. In the postwar industrial relations system, unions were supposed to react after the fact to changes in management policies (except those dealing narrowly with pay and working conditions). But they were not to have a hand in initiating new policies. Profit sharing was

seen as a potential threat to management's rights by many employers of this period. Sharing profits seemed to imply a worker entitlement to the returns to capital and - therefore - a voice in determining how capital was employed.

During the early 1960s, sluggish economic performance produced union wage freezes and wage moderation in major American industries. As occurred in the 1980s, a byproduct of the wage settlements was expanded interest in profit sharing and gain sharing. The American Motors Corporation negotiated a profit sharing contract with the United Auto Workers which also included some cooperative elements. In the steel industry, the Kaiser Long-Range Sharing Plan, a form of gain sharing, also provided mechanisms for cooperation and job security.

Worker share ownership received a substantial boost in the 1970s, thanks to modification of the tax code to foster "Kelso plans," modern ESOPs originally named after Louis Kelso, a major proponent of their encouragement. Kelso's views were adopted by Senator Russell Long, whose chairmanship of the Senate Committee on Finance put him in a powerful position to influence the tax code. From the mid-1970s through the mid-1980s, every major revision of the tax code seemed to feature additional incentives for ESOPs.

iii. Developments in the 1980s

The economic pressures on management which developed in the 1980s have already been noted. From the union perspective, the decade of the 1980s was a period of dramatic membership decline, plant closings concentrated in the union sector, a more aggressive management approach to collective bargaining, and a less hospitable legal and political climate. Thus, both on the management and labor sides, there developed at least a talking interest in exploring "new" approaches to old problems such as pay determination systems.

At the same time, academic discussions of pay systems encouraged a rethinking of traditional views about employment issues, especially attitudes towards profit sharing and some forms of gain sharing. Profit sharing had long been seen as a microeconomic device designed to alter employee behavior. In 1984, however, Martin Weitzman proposed thinking of profit sharing as a way of altering employer behavior to improve macroeconomic performance.[27] The Weitzman approach attracted public attention and enhanced the general climate that had developed around the vague idea of "pay for performance." Weitzman's model was macroeconomic in orientation and did not apply to most of the schemes discussed under the pay-for-performance label. Yet

it gave intellectual weight to the idea of flexible pay and financial participation.

The Weitzman model assumed that profit sharing bonuses would be substituted for fixed wage payments, given an appropriate tax incentive. With lower fixed wages, firms would tend to expand employment to the point of labor shortage. In a labor shortage/share economy, firms would tend to hang on to workers rather than lay them off in downturns. And they would absorb any redundant labor that became available on the labor market. Thus, a share economy would be 1) stable, 2) characterized by full employment, and 3) less prone to stubborn inflation. Note that the idea that the profit sharing bonus would substitute for the fixed wage was (and is) contrary to the gravy view in the personnel literature.

Increased economic competition from Japan naturally turned attention in the U.S. toward human resource practices in that country. The Japanese economy appeared to have properties more like a share system than did the U.S. economy, notably in its ability to ride out the oil shocks of the 1973-74 and 1979-80. Some observers noted that a significant fraction of pay in Japan came in the form of bonuses and argued that these bonuses had profit sharing characteristics.[28] The idea that the Japanese had a system of de facto financial participation added impetus to the pressure to rethink American pay determination policies.

Systems of worker participation in decision making through quality circles and similar arrangements were also seen as Japanese-style approaches to management by American observers. There is a potential linkage between participation in decision making and financial participation. It can be argued that workers who improve company performance through participation in decisions should share in the resulting economic gains. And, conversely, it can be argued that if employees' compensation absorbs some of the risk normally borne by capital, employees should then have a voice in how that capital is employed. In short, many ideas and pressures during the 1980s suggested the desirability of a move in compensation policy toward flexible pay systems. Suggestions and actual practice, however, are not the same thing.

There was no actual modification of the tax code in the U.S. in response to the Weitzman proposal, although there were some bills submitted to Congress that would have stimulated profit sharing.[29] The Weitzman proposal triggered an outpouring of new academic research on alternative pay systems by economists. This research - although originally macro oriented - began to focus on the more traditional micro issues of productivity enhancement and firm-level job security.[30]

It was reinforced by other currents in the academic literature such as the "new economics of personnel," "principal/agent" theory, and empirical efforts to link personnel policies (including compensation) with the economic performance of the firm.

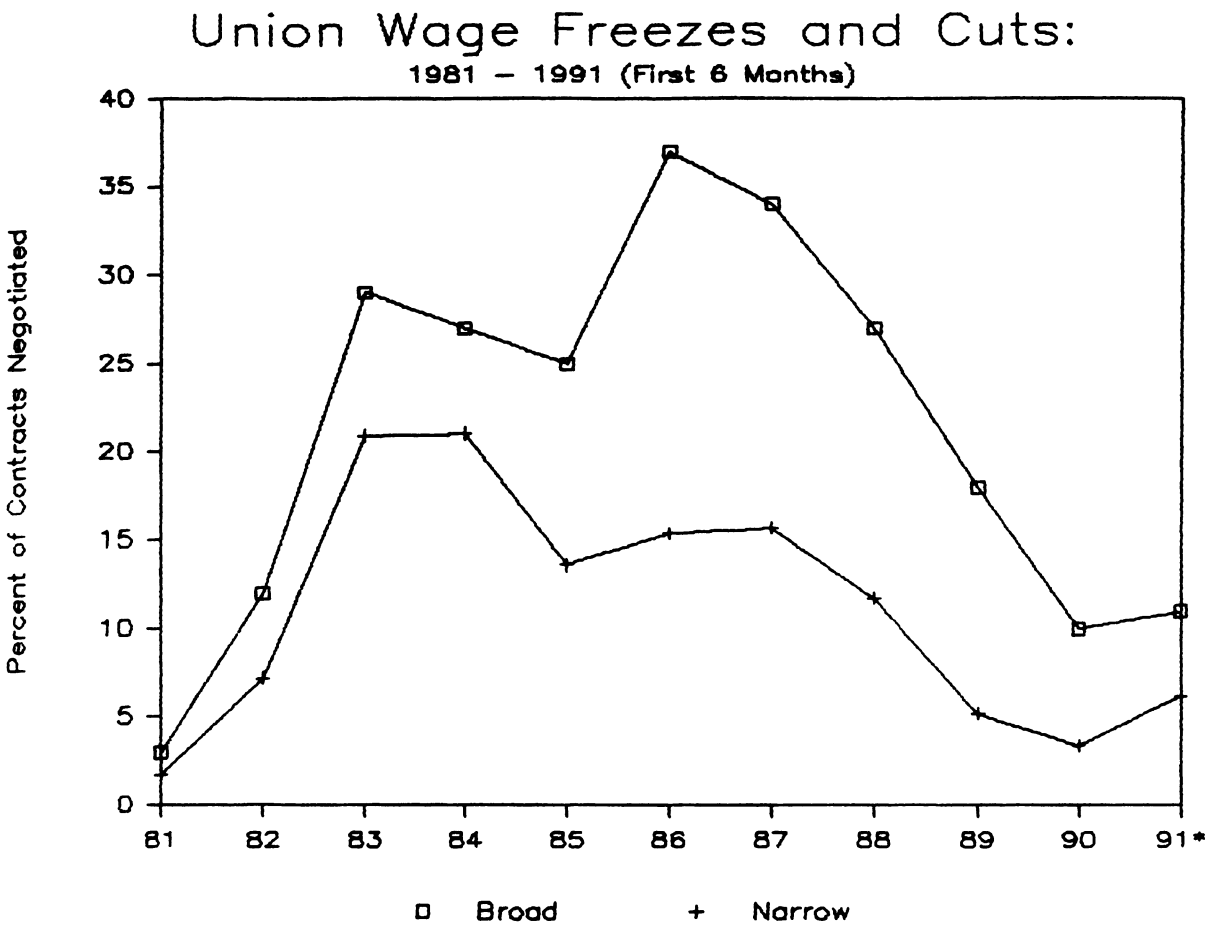
Although comprehensive data are not available, it is doubtful that economic pressures and/or academic research in the 1980s produced a reversal of the pre-existing downward trend in simple incentive systems. However, there probably was some expansion of gain sharing, although starting from a very low base. Employee stock ownership increased, thanks to generous tax incentives, but probably expanded to a lesser degree than proponents have suggested. Profit sharing, although it may have declined in the late 1980s, did achieve a breakthrough into parts of the union sector in the early years of the decade, especially in automobile manufacturing. Hence, it is worth looking in more detail at profit sharing pacts associated with union concession bargaining.

iv. Concession Bargaining and Profit Sharing.

As noted earlier, there were on the order of a half a million union workers under profit sharing by the late 1980s. Most of these workers came under profit sharing as a result of concession agreements. While it is difficult to define a "concession" contract precisely - since all collective bargaining involves some give and take - a useful broad definition covers any contract with a basic nominal wage freeze or cut in the first year. Chart 3 shows the annual number of such concession contracts as a proportion of all union contracts negotiated in the business sector during 1981-1991. The chart is based on data from a biweekly survey conducted by the Bureau of National Affairs, Inc. (BNA).[31] However, some contracts with wage freezes or cuts in the first year provided workers with other pay adjustments through a cost-of-living adjustment clause (COLA clause or escalator) linked to the Consumer Price Index or through a lump-sum bonus. Thus, a narrow definition can be constructed which excludes all contracts with COLAs and lump sums. Such a series also appears on Chart 3.

As can be seen from the chart, the bulk of concession bargaining occurred after the 1979-82 period of economic downturn. Using the narrow definition, concession bargaining peaked in 1983-84; using the broad definition, the peak came later in 1986. Concession bargaining generally declined after the mid-1980s until the recession of 1990-91.

Chart 3



See text for data source and interpretation.

Profit sharing was featured in only 5.1% of all concessions on the broad definition and 5.6% on the narrow definition.[32] Figure 3 shows that relatively high rates of profit sharing concessions occurred in four industries: metal manufacturing, motor vehicles, meatpacking, and airlines. The airline industry was especially affected by deregulation in the 1980s. Metals and motor vehicles were both influenced by international competition and the dollar appreciation of 1980-85. In contrast, meatpacking was not affected by these influences. However, a climate of particularly difficult labor-management friction arose in that industry as wages were cut.

Chart 4 shows the time distribution of concession contracts featuring profit sharing. While contracts with the largest bloc of workers under profit sharing were negotiated in the motor vehicle sector in 1982 (at Ford and General Motors), the peak year in terms of number of agreements was 1986. Thereafter, profit sharing concessions fell in frequency along with the general trend in concession bargaining.

According to Table 1, the same proportion of nonconstruction profit sharing and non-profit sharing contracts contained COLA clauses prior to the concession negotiation or created new ones.[33] However, concession contracts with profit sharing were more likely than others to "freeze" the COLA provision or to eliminate it entirely.[34] Thus, flexibility was being rechanneled from a link to the external Consumer Price Index to a link to the internal profitability of the enterprise.

Profit sharing concessions were more likely than other concession contracts to cut the basic wage rather than simply freeze it. Therefore, it appears that profit sharing was associated with the most severe form of concession bargaining. The milder form of wage cutting - two-tier provisions reducing wages only of new entrants but not of incumbents - was found with about the same frequency in both profit sharing and non-profit sharing concessions.

There has been speculation that the lump-sum bonuses which began to be negotiated in lieu of wage increases in the 1980s might become a de facto form of profit sharing. Under this hypothesis, over a sequence of negotiations the bonus would become a variable element linked to the employer's economic condition at the time, as apparently occurs in Japan. It does appear from Table 1 that lump sums were less likely to be negotiated in profit sharing concession contracts than in others, seemingly suggesting that lumps sums and profit sharing were being viewed as substitutes. However, at closer inspection, this hypothesis is not supported.

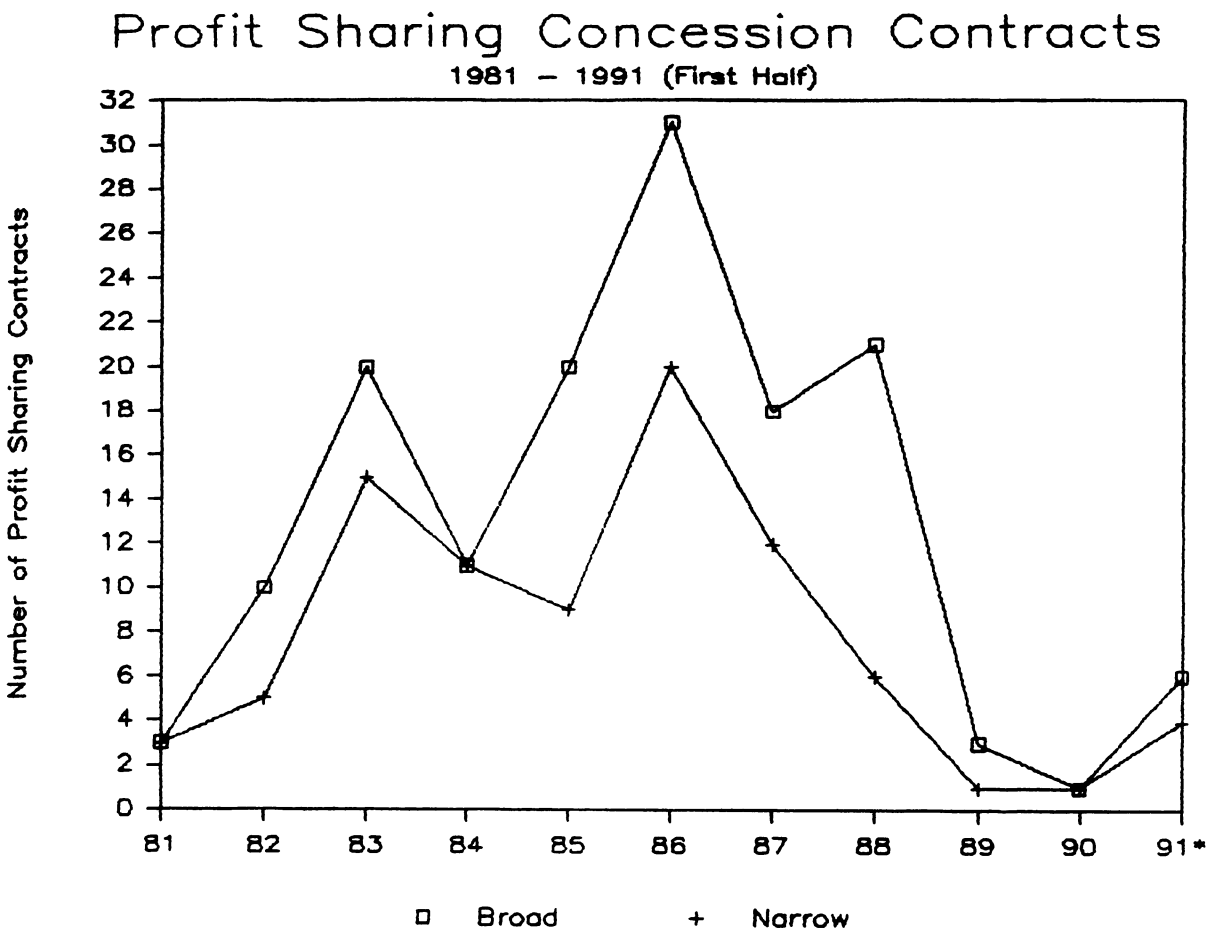
Profit sharing concession contracts were more likely than others to feature

Figure 3: Industrial Distribution of Profit Sharing Concession Contracts, 1981-1991 (First Half)

	Profit Sharing Concessions Accounted for Less than 10% of All Concessions in the Industry	Profit Sharing Concessions Accounted for 10% or More of All Concessions in the Industry
10 or More Contracts Reported	Retail Foodstores Machinery Lumber & Paper	Metals Motor Vehicles Meatpacking Airlines
3-9 Contracts Reported	Food Manufacturing except meatpacking	Rubber Printing & Publishing Mining

Note: Information above is based on 141 concession contracts in a data file maintained by the author drawn from settlement listings appearing in various issues of the Daily Labor Report. A concession is defined as a first-year wage freeze or cut following the "broad" definition described in the text.

Chart 4



See text for data source and interpretation.

Table 1: Profit Sharing and Non-Profit Sharing Concession Contracts in the Nonconstruction Sector, 1981-1991 (First Half)

	Percent of Concessions with Specified Feature	
	Profit sharing Concessions	Other Concessions
COLA Situations a/	27%	27%
COLA Freezes	29% b/	12% b/
COLA Eliminations	16% b/	8% b/
Wage Decrease Included	34%	12%
Two-Tier Wage Plan Included	12%	11%
Lump-Sum Bonus Included	29%	45%

a/ Situations in which an active COLA clause was included or in which a previous COLA clause was frozen or eliminated.
b/ As percent of COLA situations.

Source: See Figure 3. A total of 140 profit sharing concessions and 1922 non-profit sharing concessions are included in the tabulations.

absolute decreases in the basic wage. Generally, when the basic wage was cut, a lump sum was unlikely to be negotiated. It seemed to make little sense to cut the wage but then give the money back to workers in the form of a bonus. Hence, the apparent substitution of lumps sums for profit sharing seems to be a statistical illusion. While there is some evidence that lump sums have been negotiated in industries facing greater uncertainty of demand, there is as yet no hard proof that lump-sum bonuses were being used as informal profit sharing.[35]

V. Effects of Alternative Pay Systems

Research on the impact of use of alternative pay systems is haunted by an inherent bias in the data. It is unlikely that the installation and maintenance of a particular pay system is a purely random event, uncorrelated with the likelihood or actual outcome of a favorable result from management's viewpoint. As long as there is such a correlation, both statistical and case studies will be biased toward a finding that the pay system under investigation improves some measure of economic performance. Adding sufficient controls may reduce the bias but probably will not eliminate it. Thus, even if it is found that, say, profit sharing is associated with greater profitability, that finding cannot be taken as proof that any firm can improve its profits by installing a profit sharing system.

One exception to this problem is research into byproducts of particular pay systems which are not necessarily of particular interest to management. A search for Weitzman-type effects of profit sharing on employment stability might arguably fall into this class. Suppose firms install profit sharing in pursuit of greater profits, and suppose further that the profit-enhancing effect does not result from increased employment stability. Then a finding that profit sharing firms have more stable employment patterns than others could be taken as vindication of Weitzman's proposal for stabilizing the economy via tax incentives for profit sharing. One study using American data has found evidence, at least within manufacturing, of such an employment-stabilizing impact.[36]

i. Measurement of Micro Performance

When the target variable is some measure of firm economic performance (rather than a byproduct not of interest to management), the bias problem described above is difficult to avoid. As might be expected given the bias, there is at least some evidence in the American context for all of the pay systems under discussion that they contribute something to firm performance.[37]

Simple Incentive Research. For simple incentive systems, the evidence is indirect but persistent. BLS industry wage studies report average hourly earnings for workers under time-based pay and workers under incentive systems by detailed occupation. It has long been noted that within narrowly-defined occupations in an industry, workers under incentive systems typically receive more total pay per hour than workers under time-based pay. Differentials ranging up to about one fifth have been reported. Such differentials, it might be noted, are at least consistent with - even if not definitive proof of - the longstanding gravy model in the personnel literature.

If employers are paying more to incentive workers than to time workers, it can be inferred that there is some payoff to the firm in terms of added productivity and/or reduced cost. Part of the payoff to the firm may be the result of a worker sorting process. For example, suppose more productive workers are more attracted to incentive systems than other workers. The firm may be obtaining a productivity dividend by using its incentive system to attract better workers. Note that from the viewpoint of the national economy, aggregate productivity may not be enhanced, since the less productive workers find jobs elsewhere. But from the point of view of the individual firm with incentives, the sorting process is beneficial.

It has also been noted that firms rarely have time-based and incentive workers in the same occupation and establishment. This finding could reflect an equity consideration; perhaps the pay differential - even if it mirrors a productivity difference - would be demoralizing to employees. But it could also reflect systematic, but unmeasured, differences between firms using simple incentives and other firms.

Profit Sharing Research. Just as the gravy approach receives support in the case of incentives, so too does it find support with regard to profit sharing. Profit sharing seems to be an add-on to pay in the U.S. Workers appear to receive more total pay if they are covered by profit sharing than if they are not. They do not seem to lose wages or other benefits in exchange for their profit sharing plans.

If the gravy approach applies to the implementation of profit sharing, that is bad news for the Weitzman proposal, at least based on its own model. The underlying Weitzman model depends on a substitution of the share bonus for the base wage. However, as noted above, there is a least some evidence supporting Weitzman's prediction of greater job stability in profit sharing companies. Can the gravy

finding and the stability finding be reconciled?

For reconciliation, there must be some departure from the underlying Weitzman model. An alternative model can be sketched which is consistent with both a gravy approach to profit sharing and greater employment stability, but which goes beyond simple classical analysis of the firm. Suppose workers value job security. Faced with fluctuating product demands, firms might find it less burdensome to provide that security if workers are willing to take on some product market risk. Risk sharing can occur in the form of variable pay through profit sharing. If, in addition, following the gravy approach allows firms to obtain an added productivity reward and/or cost saving, the two seemingly-conflicting findings can be accommodated. And the macro benefits of the Weitzman proposal are not entirely lost.

In any case, the additions to profit sharing coverage that resulted from union concession bargaining in the 1980s are not represented in the gravy evidence. The concession bargaining process seemed to reflect a trade off between fixed pay and job security. In the 1982 automobile concessions, a variety of job and income security measures were installed along with profit sharing. The juxtaposition of the two new policies suggests that variable pay was being used as a route to obtaining less variable employment. On the other hand, the wage freeze that was imposed in 1982 suggests that profit sharing was being exchanged for less fixed pay, contrary to the gravy approach.

There is some evidence for the U.S. linking use of profit sharing with improved economic performance and productivity. Firms which climbed out of the recession of the early 1980s the fastest were more likely than others to have profit sharing plans.[38] Thus, it may be that firms are assisted when they are in economic difficulty by having employees carry some of the risk burden.[39]

Gain Sharing Research. Because gain sharing is quite rare, most of the research on it has been confined to case studies. Generally, positive results are reported. Authors often tie the success of gain sharing to changes in organizational "culture" which accompany its implementation. Some of the American literature on gain sharing has been written by management consultants who install such programs, a potential source of bias.[40] However, the rarity of gain sharing - despite decades of academic enthusiasm - suggests that installing and administering successful plans is difficult.

Employee Stock Ownership Research. Research on ESOPs has also often been conducted by proponents. However, even "neutral" observers have tended to find some positive results, although perhaps not as consistently as with profit sharing.[41] Some, but not all, studies suggest an interaction effect on performance between employee participation in decision making and the use of an ESOP.

As already noted, ESOPs receive the most generous tax subsidy of any of the forms of financial participation discussed in this paper. Despite this advantage, Figure 1 indicated that only 3% of the full-time workers in medium to large establishments had ESOP coverage by the end of the 1980s. The limited coverage raises the issue of why management would want to resist ESOP installation if it was a sure route to improved company performance.

The potential for a loss of managerial control might be one explanation. If managers are operating in the interest of shareholders, and if they believe a measure of worker control would reduce efficiency, then managers would resist ESOP installation despite the tax subsidy. However, the research literature does not suggest ESOPs have a negative effect on performance. So it is possible that managers resist ESOPs out of fear that their own authority and status will be circumscribed. The issue of managerial attitudes is discussed below.

One of the goals of ESOP proponents was a significant broadening of stock ownership to workers. Since ESOPs remain limited in coverage, they have not been found to have materially altered wealth distribution. Poll results suggest that in the abstract workers like the idea of owning stock in their employers, although they do not necessarily want a part in making key managerial decisions.[42]

The ultimate in such decision making, whether wanted or not, has come in cases where ESOPs have been used to buy failing enterprises that would otherwise have been shut down. Generally, such examples have been met with considerable academic (and public) interest and enthusiasm. Yet such cases do not always end happily.

Hyatt Clark Industries (a former General Motors parts plant) and Rath Packing Company (a meatpacking firm) were viewed as potential pathbreakers when union-sponsored ESOPs took them over in the early 1980s.[43] Both enterprises obtained wage concessions, local community support, and the tax advantages of an ESOP. But both failed. In contrast, Weirton Steel - another case of a union-sponsored takeover via an ESOP which averted a shutdown - proved successful (at least through 1991). Unfortunately, although there have been many articles about Weirton in the popular press, a detailed research account of its experience is not available. On

the other hand, the failure of Rath has been documented and the evidence suggests - perhaps not surprisingly - that it is difficult for union officials to implement or endorse harsh managerial measures in the face of economic adversity.[44]

Not all cases in which ESOPs were used to aid unionized enterprises involved majority or full employee ownership.[45] Western Airlines, under severe competitive pressure due to deregulation, established an ESOP with about one third employee ownership and a profit sharing plan in late 1983. The four major unions involved were given two seats on the company's board of directors. But allocating two seats among four unions proved impossible and the seats remained vacant. Wage and benefit concessions were negotiated both before and after the creation of the ESOP. In 1986, Western was absorbed by the largely nonunion Delta Airlines and the ESOP was terminated.[46]

Thus, the evidence suggests that ESOPs are not a panacea for firm saving and job saving. They have proved useful in some cases but in others their effect was simply to delay the process of failure. Those who portray ESOPs as a route to worker control of enterprises grossly exaggerate the reality; in most cases ESOPs are simply a minority equity interest without significant participation in management.[47] ESOPs may have some impact on productivity but they do not - in theory at least - generate the kinds of employment-stabilizing effects attributed to profit sharing under the Weitzman model.

ii. Attitude Surveys

Some studies have surveyed either employees under profit sharing plans or undertaken general surveys of employees to obtain their attitude toward profit sharing and other types of flexible pay.[48] Generally, the attitudes of workers actually under profit sharing have been found to be positive. For the employee population generally, however, some leeriness has been reported about pay fluctuations that could result. Employees, other things equal, seem to prefer a fixed wage. If they are faced with a flexible pay system, they prefer individual incentives - perhaps because of a tendency of individuals to assume they are more productive than average - to company-wide share arrangements.

Employer attitudes may also be surveyed. If the survey is confined to employers who have particular types of pay systems, there is a strong bias towards a positive evaluation of such systems. First, there is the bias already described caused by the non-random distribution of particular pay systems. Second, employers

are unlikely to want to admit that they are operating unsuccessful pay plans.

It is of greater interest to survey a broad sample of managers (whether or not their firms have particular pay systems) to determine the climate of opinion towards alternative compensation plans. One such study is summarized on Table 2. Generally, American employers see simple incentives as the system best oriented towards boosting productivity. ESOPs rate poorly on this dimension; profit and gain sharing plans show up as good second choices. Profit sharing is seen as a good device for increasing loyalty to the firm and as a source of retirement income. ESOPs again rate poorly in these areas. Finally, profit sharing is seen as a way of increasing the firm's labor cost flexibility. Typically (and not surprisingly given the biases involved), those employers who actually had these plans in operation were more favorable to them than other employers.

Apart from the data presented on the table, the same survey revealed that profit sharing and simple incentives are seen as comparatively easy to administer. But ESOPs and gain sharing are viewed as difficult to administer and to explain to workers. Unionization did not have a significant impact on the actual usage of a flexible pay system. But managers from unionized firms were more likely than others to believe that having such systems would entail demands for worker participation in decision making. Since unions are a mechanism of employee "voice" which could be used to make demands of this type, the finding is understandable.

Finally, both deferred profit sharing and ESOPs receive favorable tax treatment. One issue is whether employers, when they decide to install one of these plans, become more or less likely to install the other. Most employers did not agree with the idea that having one plan precludes the other. And in terms of actual reported usage, the presence of one plan did not seem to affect the likelihood of the presence of the other.

VI. Financial Participation in the U.S.A.

The 1980s saw a growth in interest in the concept - often not clearly defined - of "pay for performance." Academic economists were particularly interest in the possibility of using profit sharing to improve macroeconomic stability. And research into a variety of flexible pay systems was stimulated.

Despite the interest and research, there was no transformation of the basic pay system in the U.S. Fewer workers are covered by collective bargaining now than in the 1970s and more are covered by nonunion pay determination. But apart from

Table 2: Attitudes of Management Respondents Toward Selected Pay Systems (percentages)

	Profit Sharing	ESOP	Gain Sharing	Simple Incentives
Plan best for:				
raising productivity	28(30)	5(5)	26(59*)	42(55*)
increasing loyalty	48(49)	17(22)	18(41*)	15(20*)
retirement income	81(88*)a/	12(24*)	n.a.	n.a.
linking labor costs to firm's economic condition	53(56*)	n.a.	28(57*)	19(23*)

*Chi-squared test indicates that the pattern of responses by those whose firm had the plan was significantly different from that of other respondents at the 5% level.

a/ Refers only to tax-deferred profit sharing plans.

Note: Figures on table refer to the number of management respondents who agreed with statement. The first figure refers to all respondents; the second figure in parentheses refers only to those managers whose firms had the pay system listed in the row.

Source: Daniel J.B. Mitchell and Renae F. Broderick, "Flexible Pay Systems in the American Context: History, Policy, Research, and Implications" in Donna Sockell, David Lewin, and David B. Lipsky, eds., Advances in Labor Economics, vol. 5 (Greenwich, Conn.: JAI Press, 1991), p. 132.

this trend, most workers received time-based wages with discretionary adjustments based on subjective evaluations of merit by supervisors. The pressures for flexibility in the employment relationship continue to be felt. Employers, however, have tended to rely on quantitative flexibility arrangements - layoffs and hires, changes in weekly hours, contingent workers - rather than flexible pay.

Although the temptation is strong to proclaim a new compensation order - particularly by advocates of employee stock ownership - the revolution has yet to arrive. It is useful to recall in this regard inflated predictions made in the 1970s that investment of pension fund assets in corporate stocks would produce "pension fund socialism" and give unions tremendous clout in influencing employer policy.[49] Undoubtedly, if the strong tax incentives that currently exist remain in place, ESOP coverage will expand. But ongoing federal budget pressures may reduce the generosity of these incentives, as occurred in 1986 and 1989.

In any case, in a society marked by increased worker mobility (voluntary and involuntary), profit sharing has a better claim to scarce tax incentive dollars than does stock ownership. Profit sharing has the potential for fostering macroeconomic stability - an externality which justifies a subsidy even if all the assumptions of the Weitzman model do not hold. And, on balance, the evidence that profit sharing produces micro benefits in the form of enhanced firm performance is stronger than that for ESOPs. Finally, profit sharing avoids the complexities of corporate finance and control that ESOPs raise. With profit sharing coverage apparently declining in the late 1980s, a rethinking of public policy priorities is warranted.

Footnotes

1. This report draws heavily on previous work of the author and various co-authors including Daniel J.B. Mitchell, "Pay Systems and Labor Market Flexibility in the U.S.A.," monograph prepared for the International Labour Organisation, April 1990; Daniel J.B. Mitchell, David Lewin, and Edward E. Lawler III, "Alternative Pay Systems, Firm Performance, and Productivity" in Alan S. Blinder, ed., Paying for Productivity: A Look at the Evidence (Washington: Brookings Institution, 1990), pp. 15-88; and Daniel J.B. Mitchell and Renae F. Broderick, "Flexible Pay Systems in the American Context: History, Policy, Research, and Implications" in Donna Sockell, David Lewin, and David B. Lipsky, eds., Advances in Industrial and Labor Relations, vol. 5 (Greenwich, Conn.: JAI Press, 1991), pp. 95-149. Excerpts from the first-listed paper can be found in the Work Flexibility Review, no vol. (February 1991), pp. 61-96. Detailed citations to the financial participation literature may be found in these references.

2. Examples include requirements for advance notification of plant closings and mass layoffs (mentioned later in the text), various controls on benefit offerings effected through the tax code, and an erosion in many state courts of the so-called "at-will doctrine" of employment. The last has resulted in considerable litigation of "wrongful discharge" cases. Mandatory retirement was outlawed for most workers and age discrimination litigation rose in importance. Finally, workplace complaints were channeled by enterprising lawyers through mechanisms provided by older programs such as workers' compensation and equal employment opportunity.

3. The more insulated public sector did not experience such a decline; about 4 out of 10 public sector workers were represented by unions. However, in the U.S. - with the significant exceptions of the postal service and certain urban transport systems - there is comparatively little public ownership of market-oriented enterprises.

4. Unions became increasingly concerned in the late 1980s about the replacement of striking workers by nonunion substitutes. Under longstanding American law, employers can permanently replace workers during an "economic" strike. Such practices were used in a number of very prominent labor disputes, e.g., Eastern Airlines. During the early 1990s, unions mounted a political campaign to amend the law. Another area of union concern was the use of corporate bankruptcy to terminate existing contracts and to put future terms and conditions of employment under the purview of a bankruptcy court.

5. There were some concerns that American labor law, which outlaws so-called "company unions," could be a barrier to installation of certain quality of working life (QWL) programs. In practice, this has not been a major issue.

6. Equal employment opportunity laws, which forbid discrimination on the basis of race, sex, age, and other protected classifications may place some limits on who is laid off.

7. Union contracts will most often base layoffs on reverse order of seniority. In addition, union contracts may contain provisions which discourage layoffs such as severance pay or - in some cases - guarantees of income continuance or transfer rights to other jobs. Where layoffs are due to subcontracting or plant closings, various legal obligations to bargain with the union apply. However, as long as bargaining is in good faith, there is no requirement that an agreement be reached.

8. Absent a special provision of the type cited next in the text, a person who is only partially unemployed does not qualify for unemployment insurance benefits. A complete layoff is necessary.

9. Once study finds little evidence of a linkage between firm wage differentials and profitability using data from firms in Cleveland, Cincinnati, and Pittsburgh. See Erica L. Groshen, "Ability-to-Pay, Rent Capture and Salaries in the Private Sector" in John F. Burton, Jr., ed., Proceedings of the Forty-Second Annual Meeting, Industrial Relations Research Association, December 28-30, 1989 (Madison, Wisc.: IRRA, 1990), pp. 186-194. However, Groshen cites other studies which provide some evidence that wages do capture rents from employers. Note that since such rent capturing cuts into accounting profits, the relationship between wages and profits need not be positive for rent capturing to occur. If employers are unilaterally using their wage setting policies as de facto profit sharing, however, the relation should be positive since firms are unlikely voluntarily to give away profits with no return.

10. Conceptually included here are systems which share revenues rather than profits, including some in the metal mining area that gear bonuses to the price of ore.

11. One might also include worker cooperatives. However, these are of negligible significance for the U.S. economy and typically involve very small enterprises. There are also, of course, many very small family owned and operated enterprises especially in agriculture and retailing where the employees are in fact family members. All of these enterprises are excluded from further discussion.

12. Not properly included in the individual category are so-called "pay for knowledge" systems in which individuals are rewarded for mastering certain skills. Such systems will provide a reward even if the skills are not used or do not result in increased output.

13. It should be stressed that when reference is made to a breakthrough, the breakthrough is in terms of actual institution of profit sharing rather than in official attitudes toward it. Officially, unions have been leery of profit sharing, citing the flexibility it introduces into pay as a negative attribute. For an official statement from the AFL-CIO, see Neil Gladstein, "Profit Sharing and Unions," AFL-CIO Reviews the Issues, report no. 49 (May 1991), pp. 1-4.

14. Data on the payouts of the three types of plans are drawn from the annual surveys of the Profit Sharing Council of America. See Figure 1.

15. Profit and employee compensation data are from the national income accounts which appear in the Survey of Current Business.

16. A qualification must be made. A profit sharing plan which gives 100% of profits to workers represents the maximum variability (risk sharing) that could occur in a given enterprise. It is equivalent to complete worker ownership of the firm. However, under the Weitzman model (see below in the text) an economy composed of such firms would behave differently and, in theory, be more stable. Thus, the net effect of exposure to micro risk but greater stability at the macro level could be less variability of income than found in a typical contemporary profit sharing plan.

17. In principle, a profit sharing plan might exhibit a variable payout but one not related to profits. Hence, variability cannot by itself demonstrate that compensation is being linked to the economic circumstances of the enterprise.

18. Employer contributions of stock to "PAYSOPs" were deductible from tax liability rather than merely from taxable income. Hence, the government effectively paid for these contributions. Moreover, the value of the contribution was not immediately taxable to employees since the contribution was treated the same as other deferred income. As a result, the effective subsidy to PAYSOPs was more than 100%.

19. At their peak in 1986, the U.S. Bureau of Labor Statistics reported that in medium to large establishments, 28% of full-time workers were covered by PAYSOPs (tax-credit ESOPs) compared with only 2% for ordinary ESOPs. Given the heavy tax subsidy provided to PAYSOPs, it is remarkable that coverage was limited to only 28%.

20. A description of the tax rules surrounding ESOPs can be found in Employee Benefit Research Institute, Fundamentals of Employee Benefit Programs, fourth edition (Washington: EBRI, 1990), chapter 10.

21. U.S. Office of Management and Budget, Budget of the United States Government, Fiscal Year 1992 (Washington: GPO, 1991), Part 3, pp. 31-32, 36.

22. Long's father, Senator Huey Long, led a populist "share the wealth" movement in the 1930s. The notion that ESOPs would spread stock ownership - an idea akin to sharing the wealth - apparently appealed to Russell Long.

23. Pacific Enterprises is a holding company which owns Southern California Gas Company - a major utility in the Los Angeles area - and Thrifty Corporation - a chain of drug and discount stores. After the election, the firm changed its voting rules for the ESOP making another such campaign improbable. See Linda Williams, "Union Official Nearly Elected to Gas Co. Board," Los Angeles Times, May 13, 1989, Part 4, pp. 2, 4.

24. "Avis: ESOP's Fable," Economist, July 22, 1989, pp. 58, 60.

25. In some firms, programs of "welfare work" were adopted providing workers with social clubs, choirs, reading rooms, mutual aid funds, and avenues for thrift. For details, see Sanford M. Jacoby, Employing Bureaucracy: Managers, Unions and the Transformation of Work in American Industry, 1900-1945 (New York: Columbia University Press, 1985).

26. Nonagricultural employment rose by 1.4% per year during 1919-1929 while manufacturing and mining employment was virtually unchanged and employment in transportation and utilities fell. In the sectors where unions were concentrated only construction showed significant employment growth. Source: U.S. Bureau of the Census, Historical Statistics of the United States: Colonial Times to 1970 (Washington: GPO, 1975), Part 1, p. 137. Private union membership peaked at 4.7 million in 1920. In 1929, it stood at 3.5 million. Source: Leo Troy and Neil Sheflin, Union Sourcebook: Membership, Structure, Finance, Directory (West Orange, N.J.: Industrial Relations Data Information Services, 1985), p. A1.

27. Martin L. Weitzman, The Share Economy: Conquering Stagflation (Cambridge, Mass.: Harvard University Press, 1984).

28. Masanori Hashimoto, "Employment and Wage Systems in Japan and Their Implication for Productivity" in Blinder, Paying for Productivity, op. cit., pp. 245-294.

29. Weitzman's views seemed more influential in Britain (where tax code changes were made) than in the U.S.

30. References include a special issue of the Industrial and Labor Relations Review devoted solely to compensation. See vol. 43 (February 1990); Haig R. Nalbantian, ed., Incentives, Cooperation, and Risk Sharing (Totowa, N.J.: Rowman & Littlefield, 1987); and Blinder, Paying for Productivity, op. cit.

31. Data appear regularly in the Daily Labor Report. The author maintains a computer file based on the BNA survey of concession agreements.

32. Under "profit sharing" are included some contracts with gain sharing or pay adjustments geared to product prices in the industry.

33. The construction industry is excluded from discussion since it is difficult to negotiate profit sharing in that sector due to the casual attachment of workers to employers.

34. A frozen COLA clause continues to be mentioned in the contract but no pay increases are payable pursuant to the clause. Presumably, the union - by retaining mention of the COLA - is signaling that hopes to reactivate the clause in some future negotiation.

35. For further discussion, see Christopher L. Erickson and Andrea C. Ichino, "Lump Sum Bonuses in Union Contracts: Semantic Change or Step Toward a New Wage Determination System?," unpublished working paper, Cornell University, 1990; and Linda A. Bell and David Neumark, "Lump-Sums, Profit Sharing, and Labor Costs in the Union Sector," working paper no. 3630, National Bureau of Economic Research, 1991.

36. Douglas L. Kruse, "Profit-Sharing and Employment Variability: Microeconomic Evidence on the Weitzman Theory," Industrial and Labor Relations Review, vol. 44 (April 1991), pp. 437-453. It might be noted that this study was based on tax records. Hence, the profit sharing plans all are deferred. Cash profit sharing, as noted earlier, tends to exhibit more variability and may come closer to the Weitzman model.

37. Material in this section summarizes the discussion in Mitchell, Lewin, and Lawler, "Alternative Pay Systems, Firm Performance, and Productivity," op. cit. Citations of the literature and statistical evidence can be found in that source.

38. Mitchell, Lewin, and Lawler, "Alternative Pay Systems, Firm Performance, and Productivity," op. cit.

39. A meta-analysis of studies of profit sharing on performance in various countries (including the U.S.) suggests a persistent positive finding. See Martin L. Weitzman and Douglas L. Kruse, "Profit Sharing and Productivity" in Blinder, Paying for Productivity, op. cit., pp. 95-140.

40. The gain sharing literature is reviewed in Weitzman and Kruse, "Profit Sharing and Productivity," op. cit., pp. 111-114, 130.

41. The ESOP literature is reviewed in Michael J. Conte and Jan Svejnar, "The Performance Effects of Employee Ownership Plans," in Blinder, Paying for Productivity, op. cit., pp. 143-172.

42. Jim Schachter, "Workers Prefer Stock to Being Boss, Poll Finds," Los Angeles Times, November 27, 1989, pp. D1-D2.

43. See Robert N. Stern, William Foote Whyte, Tove Hammer, and Christopher B. Meek, "The Union and the Transition to Employee Ownership" in William Foote Whyte et al, Workers Participation and Ownership: Cooperative Strategies for Strengthening Local Economies (Ithaca, N.Y.: ILR Press, 1983), pp. 81-117.

44. Tove H. Hammer and Robert N. Stern, "A Yo-Yo Model of Cooperation: Union Participation in Management at the Rath Packing Company," Industrial and Labor Relations Review, vol. 39 (April 1986), pp. 337-349.

45. A review of ESOPs and participation under collective bargaining can be found in George Strauss, "Workers' Participation and U.S. Collective Bargaining" in Cornelis J. Lammers and GyÖrgy Széll, eds., International Handbook of Participation in Organizations, vol. 1 (New York: Oxford University Press, 1989), pp. 227-247.

46. Kirsten R. Wever, Western Airlines and Its Four Major Unions, report BLMR 129 (Washington: U.S. Bureau of Labor-Management Relations and Cooperative Programs, 1988).

47. See the conclusion of Raymond Russell, "Taking Stock of the ESOPs" in Lammers and Széll, International Handbook of Participation in Organizations, op. cit., pp. 50-60.

48. The material below is based on the literature survey of Weitzman and Kruse, "Profit Sharing and Productivity", op. cit., pp. 115-123.

49. Peter F. Drucker, The Unseen Revolution: How Pension Fund Socialism Came to America (New York: Harper & Row, 1976); Jeremy Rifkin and Randy Barber, The North Will Rise Again: Pensions, Politics and Power in the 1980s (Boston: Beacon Press, 1978).